

A hot piece of PISA: The relation between language use and academic achievement

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In the past fifteen years, many countries have reformed their educational systems with reference to the PISA studies (Breakspear, 2012). Also, with respect to educational language policies, a substantial influence is exerted by these studies (Cummins, 2008). Such language policies are often informed by data that compare the academic achievement of native speaking (NS) students and language minority (LMi) students (eg. Schnepf, 2007). Some PISA reports have claimed that NS students outperform LMi students. Based on this finding, far reaching inferences have been drawn about the consequences of speaking and exposure to a minority language (ML). Many policymakers have responded to these PISA reports with a monolingual reflex by increasing political pressure on linguistic minorities to abandon their heritage languages (Agirdag, 2010; Pulinx, Van Avermaet & Agirdag, 2016).

However, previous PISA assessments were not appropriate to examine the impact of students' language use because very limited information was available about their actual language use. That is, only a dichotomous language background variable was assessed. The most recent PISA 2012 data provides a unique opportunity to fill this research lacuna as it includes a more elaborated questionnaire on linguistic issues (OECD, 2013). As such, the purpose of this study was to contribute to the scholarship in this field by investigating how students' language background and various indicators of language use are related to academic achievement. To examine the impact of language use and academic achievement, we conducted three-level multivariate regression analyses.

The results revealed that there is indeed an achievement gap between LMi and NS students for both reading and mathematics. After taking account of students' background characteristics, students' academic profiles and school characteristics, the LMi-NS achievement gap narrows but remains significant. However, the reason for the underachievement of LMi is not their language use. LMi students who speak a ML more often with their parents do not achieve less. On the contrary, speaking a ML more often with the father is positively related to mathematics and reading achievement of LMi students.

Nevertheless, exposure to the instruction language (IL) remains important, in particular in school context. Indeed, we found that speaking the IL with the best friend and/or schoolmates is positively associated with mathematics and reading achievement. This might reflect the negative effect of within-school segregation, and not so much related to between-school segregation, as we found that school LMi composition is not related to academic performance.

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